Date: Fri, 27 Aug 93 04:30:30 PDT
From: Ham-Equip Mailing List and Newsgroup <ham-equip@ucsd.edu>
Errors-To: Ham-Equip-Errors@UCSD.Edu
Reply-To: Ham-Equip@UCSD.Edu
Precedence: Bulk
Subject: Ham-Equip Digest V93 #24
To: Ham-Equip

Ham-Equip Digest  Fri, 27 Aug 93  Volume 93 : Issue 24

Today's Topics:



Send Replies or notes for publication to: <Ham-Equip@UCSD.Edu>
Send subscription requests to: <Ham-Equip-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Equip Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-equip".



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Date: 26 Aug 93 13:36:38 GMT
From: ogicse!uwm.edu!spool.mu.edu!mixcom.com!kevin.jessup@network.ucsd.edu
Subject: Honda and Toyota aftermarket electronic equipment
To: ham-equip@ucsd.edu

I own a 1992 Honda Civic and a 1991 Toyota Tercel.

Since I was foolish enough to buy these two vehicles (think I'll get
a Ford Probe next time around) I have enquired with the dealership
about installing a 35 to 50 Watt 2-meter band amateur radio transceiver in
the vehicles.

I told the service manager (at both the Honda and Toyota dealership) that
I've heard rumours of the electronic control unit being voided if a
"high powered" piece of RF gear is installed.

Not only did they both say that that would "probably be true", they both
said that ANY aftermarket electronic equipment (except for mayber a

portable CD player or radar detector) would VOID the ECU warranty, even
if said equipment was installed by them!

Does anyone else have experience along these lines?  Please help.  Thanks.

--
Kevin Jessup, N9SQB  "A bad day of DXing is better than a good day at work."
---------------------------------------------------------------------------
           The U.S. Constitution defines the rights the people
                give to the government, not the reverse!

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Date: Thu, 26 Aug 1993 18:22:02 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!usenet.ins.cwru.edu!ukma!
rsg1.er.usgs.gov!dgg.cr.usgs.gov!bodoh@network.ucsd.edu
Subject: Honda and Toyota aftermarket electronic equipment
To: ham-equip@ucsd.edu

In article <1993Aug26.133638.26751@mixcom.mixcom.com>, kevin.jessup
<kevin.jessup@mixcom.mixcom.com> writes:
|> I own a 1992 Honda Civic and a 1991 Toyota Tercel.
|>
|> Since I was foolish enough to buy these two vehicles (think I'll get
|> a Ford Probe next time around) I have enquired with the dealership
|> about installing a 35 to 50 Watt 2-meter band amateur radio transceiver in
|> the vehicles.
|>
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|> Not only did they both say that that would "probably be true", they both
|> said that ANY aftermarket electronic equipment (except for mayber a
|> portable CD player or radar detector) would VOID the ECU warranty, even
|> if said equipment was installed by them!
|>
|> Does anyone else have experience along these lines?  Please help.  Thanks.
|>
|> --
|> Kevin Jessup, N9SQB  "A bad day of DXing is better than a good day at work."

Hmmm... I wonder what their fleet sales manager would say about this.  They
wouldn't sell too many fleet vehicles with that type of restriction.  I
would suggest calling the 800 number which is probably in your owners
manual and posing the same question to them - and if their answer is the
same then ask if that applies to fleet vehicles with business radios.  If
they continue to insist on the restriction, I would ask them where it says

that in the warrantee.  If properly shielded transmitters cause their ECU problems - then it is a design problem in the ECU.  They either need to fix their ECU or provide guidelines for installation of transmitters - such as mounting the antenna as far away from the ECU as possible...

BTW - Also ask them if the restriction applies to cellular phones - that would certainly impact their sales.

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++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Tom Bodoh - Sr. systems software engineer, Hughes STX, N0Y?? (in the mail)  +
+ USGS/EROS Data Center, Sioux Falls, SD, USA  57198     (605) 594-6830      +
+ Internet; bodoh@dgg.cr.usgs.gov (152.61.192.66)
          +
+    "Welcome back my friends to the show that never ends!" EL&P
          +
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Date: Thu, 26 Aug 1993 14:26:24 GMT
From: newsflash.concordia.ca!sifon!napoleon.EETECH.McGill.CA!luca@uunet.uu.net
Subject: Mods for Icom P2AT
To: ham-equip@ucsd.edu

You'll find the mods on anonymous ftp site  ham.eetech.mcgill.ca
in /pub/ham-radio/mods/icp2at.mod

73'
Luca
VE2WKR

--
Just say no to summer.
Mcgill University Electrical Engineering Department
Luca@Napoleon.EEtech.McGill.CA | VE2WKR

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Date: 27 Aug 93 01:22:01 GMT
From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu
Subject: SWR Meters
To: ham-equip@ucsd.edu

Gary Coffman (gary@ke4zv.uucp) wrote:

: Now suppose the line is *not* terminated in a resistor of the line's
: characteristic impedance. Let's first look at two extreme cases. If
: the line is *open*, then current will be zero and voltage will be
: maximum, a very high impedance point. Note that the voltage and
: current are now out of phase by 90 degrees. When the voltage collapses,

Poppycock. The instantaneous net voltage and current on a line at any point are the vector sum of the voltage and current of a forward and a reverse travelling wave. For each of those two, the ratio of voltage to current is the line impedance. If you do the measurement at a single frequency, and if the line impedance is real (no reactive component, purely resistive), the current and voltage will be exactly in phase. If you could _truely_ open-circuit an end of the line so there is _zero_ current there, then you can't say the voltage and current are 90 degrees out of phase at that point, because the current there is at all points in time _zero_. If there's a 90 degree phase shift between voltage and current, it's because you have put a purely reactive load at that point, not a true open circuit. Period.

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: Now this would all be pretty academic if we couldn't separate
: Vf and Vr so we could measure them. Various bridge type circuits
: can be used to separate the two wave components by taking advantage
: of non-reciprocal properties of the bridge circuit. We can also
: take advantage of the properties of travelling waves in the monimatch
: to do the same thing. It's difficult to show how to build a VSWR
: meter without drawings, so I'll refer you to the instrument on
: page 27-11 of The ARRL Antenna Book for a line section that will
: work at VHF/UHF and that can be made out of ordinary copper plumbing
: fixtures.

Gary earlier in the posting noted that an SWR bridge measures VSWR or ISWR rather than SWR. I take some issue with this. I claim that almost all bridges that are physically a small fraction of a wavelength make their measurement by ratioing current and voltage at a point in the line; a true VSWR meter would measure the RMS voltage at at least two places on the line (separated, for example, by 1/4 wavelength in the line), but this is NOT the way these meters work. Whether the voltage is measured with a transformer, a capacitive divider, or a resistive divider, it's the voltage at a _single_ point in the line. And at that same point, the current is measured, with a current transformer, the voltage drop through a resistor, or as an inductive pickup that's also a capacitive pickup monitoring the voltage: that is, the parallel wire.

A forward wave will have v/i=z, where i is measured as positive if flowing toward the load; a reverse wave will have v/i=z, where i is

measured as positive is flowing away from the load.  The SWR meter
works by expecting v-iz=0 for i measured positive toward the load;
built in to the meter is an assumption about z!  The meter does NOT
know the z of the line you are measuring, so if you use a 50 ohm
meter on a 75 ohm matched line, it will tell you incorrectly that
the line has an SWR greater than 1:1.

If you want more math details of how the meter works, I could be talked
into providing them.

73, K7ITM

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Date: Thu, 26 Aug 93 12:29:15
From: elroy.jpl.nasa.gov!swrinde!gatech!news-feed-1.peachnet.edu!concert!mms!
n4elm.dave@ames.arpa
Subject: WANTED
To: ham-equip@ucsd.edu

WANTED:
     Looking for late model solid-state HF rig with blown
     finals for a project. Especially interested in IC-735,
     FT-707, FT-101ZD, TS-530S, or any TEN-TEC rigs.

Leave a message here or call (919) 992-3925 anytime & leave a message.
73 - Dave, N4ELM.

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Date: Thu, 26 Aug 1993 23:58:08 +0300
From: pipex!sunic!news.funet.fi!funic!nic.funet.fi!mea.cc.utu.fi!
oh1kgk@uunet.uu.net
Subject: Wanted FT-530 mods (list)
To: ham-equip@ucsd.edu

I need mods for Yeasu "new" FT-530 radio. Please mail or tell me the
right ftp-site ..

--Saku OH1KGK <oh1kgk@mea.utu.fi>  ..!mcsun!mea.utu.fi!oh1kgk

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End of Ham-Equip Digest V93 #24
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